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Structure of the reproductive system and hectocotylus in males of lesser flying squid Todaropsis eblanae (Cephalopoda: Ommastrephidae)

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Abstract

This paper introduces new data on Todaropsis eblanae morphology, morphometry and functional aspects of the male reproductive system and hectocotylus. Spermatophores differ in specimens from the Atlantic Ocean (average length, 18.28 ± 1.45 mm, 15.63 ± 0.8% of mantle length; weight, 2.0-12.0 mg) and the Indian Ocean (average length, 24.8 ± 2.85 mm, 16.9 ± 2.1% of mantle length; weight, 35.0-39.6 mg) ($t = 3.14$; $p < 0.01$ for absolute sizes and $t = 0.711$; $p > 001$ for relative sizes). An additional important distinctive trait is the form of connection of the cement body with the ejaculatory tube. In recent years, T. eblanae has been regularly caught in the Barents Sea, meaning its range has extended to subarctic waters. The morphology and morphometry of the spermatophoric complex of organs did not vary in investigated parts of its range. Hectocotylus patterns and some important spermatophore traits distinguish Todaropsis from other Ommastrephidae.

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Keywords

Cephalopoda, hectocotylus, male reproductive system, the Barents Sea, Todaropsis